

Morrison Planetarium

Sky Shows

The Christmas Star returns to the Planetarium on Friday, December 5, with some suggestions for the identity of the legendary "star" said to have heralded the birth of Jesus of Nazareth nearly 2000 years ago, and a glimpse at the life and death of stars in our universe.

The Christmas Star can be seen through January 4 at 2 p.m. on weekdays and hourly from 1 p.m. to 4 p.m. on weekends. There will be extra shows during Christmas Week from December 22 through 26, however, the **Planetarium will be closed on December 25.**

Exploring the Skies of the Season, the popular night-sky show, continues on Saturday and Sunday at noon, featuring a look at the current constellations, planets, and phase of the moon. December's sky lights up with the brilliant constellation Orion, as well as the Geminid and Ursid meteor showers. Extra 12:30 p.m. shows will be added during Christmas week, except on Christmas Day.

Laserium

Celebrate the holidays in spectacular fashion! Live laser concerts performed to a wide range of music can be seen under the stars of Morrison Planetarium. Four different shows are offered, featuring rock, classical, or visionary music accompanied by dazzling krypton and argon laser effects. Call (415) 750-7138 for the latest show schedule.

Members are reminded that their complimentary Planetarium passes are not valid for admission to Laserium shows.

Planetarium Concert Series



An Evening of Classical Flute and Guitar

Julie McKenzie, flutist
Douglas Hensley, guitarist
December 9

8:00 p.m.

The final concert in the Planetarium's Fall Concert Series features flutist Julie McKenzie and guitarist Douglas Hensley who have premiered a number of works written by contemporary composers. Under the stars of Morrison Planetarium, this duo will perform music by Rodrigo and Rorram, as well as a work written for them by Swedish composer Hans Holewa.

Tickets are \$5 for members and \$7 for non-members. For information call (415) 750-7127.

SPRING CONCERT SERIES

A special concert on January 13 by Jazz vocalist **Bobby McFerrin and the Voicestras** will open the Spring Concert Series in the Planetarium. McFerrin, a local musician, is quickly becoming a national celebrity with his new approach to singing, using his voice like a musical instrument. This evening is sure to be a memorable one as McFerrin and his vocal group, the Voicestras, create new sounds in this fun and entertaining performance.

Future concerts in the Spring series are:

Sukay **February 10**
pan pipes of the Andes

Patrick Ball & Kevin Carr **March 17**
Irish music and legends

Masayuki Koga & Michiyo Harada

Shakuhachi flute and koto

April 28

Hatsegana

Gypsy music

May 12

Tickets for the McFerrin Concert are \$10 for members and \$12 for non-members. The other concerts in the series are \$5 and \$7 each; series tickets, including the McFerrin concert, are available to members for \$25 and non-members for \$35. Tickets can be purchased by sending a check and a self-addressed stamped envelope to Morrison Planetarium, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. No refunds, no exchanges. Call (415) 750-7127 for information.

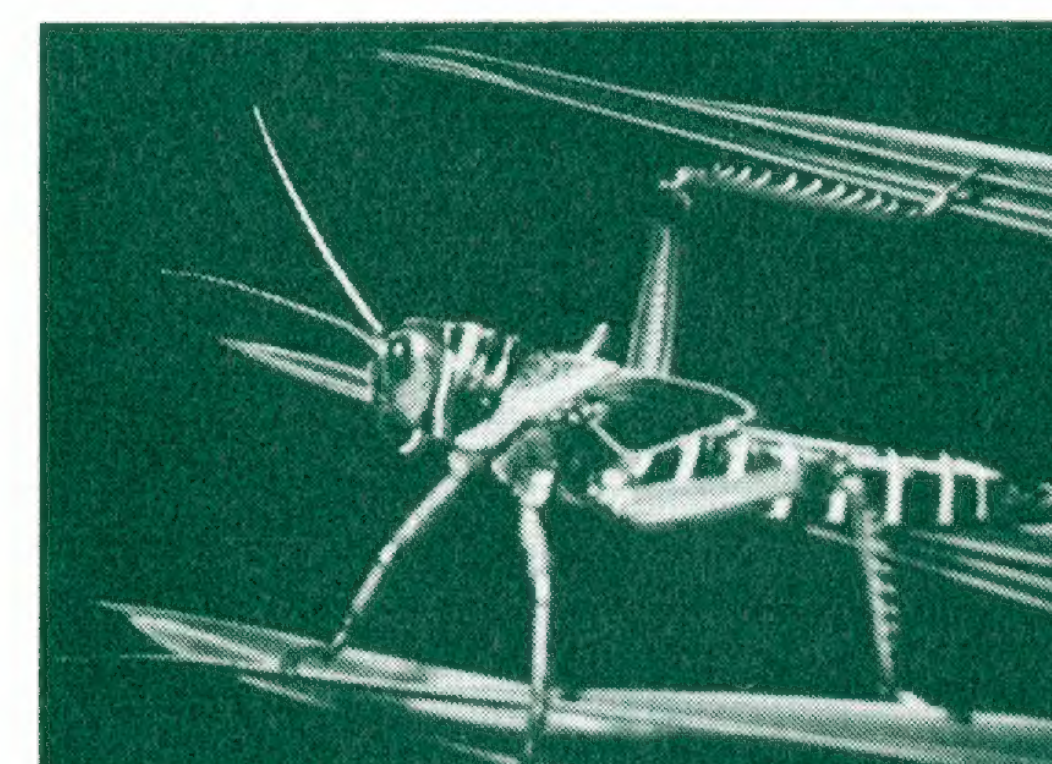
Special Exhibits



Nativity Folk Art will be on display in Wattis Hall from December 9 through the holiday season. *Creche* scenes from around the world demonstrate how artists from various cultures have interpreted the Christian story of the birth of Jesus of Nazareth. From the tiny *pesebre* from Mexico that can fit in the palm of your hand to the terra cotta *Nacimiento* scene with figures in tradition Pueblo Indian costume, these scenes reflect the beautiful diversity of folk art around the world. The Nativity scenes will be on display through January 4 in Wattis Hall of Man.



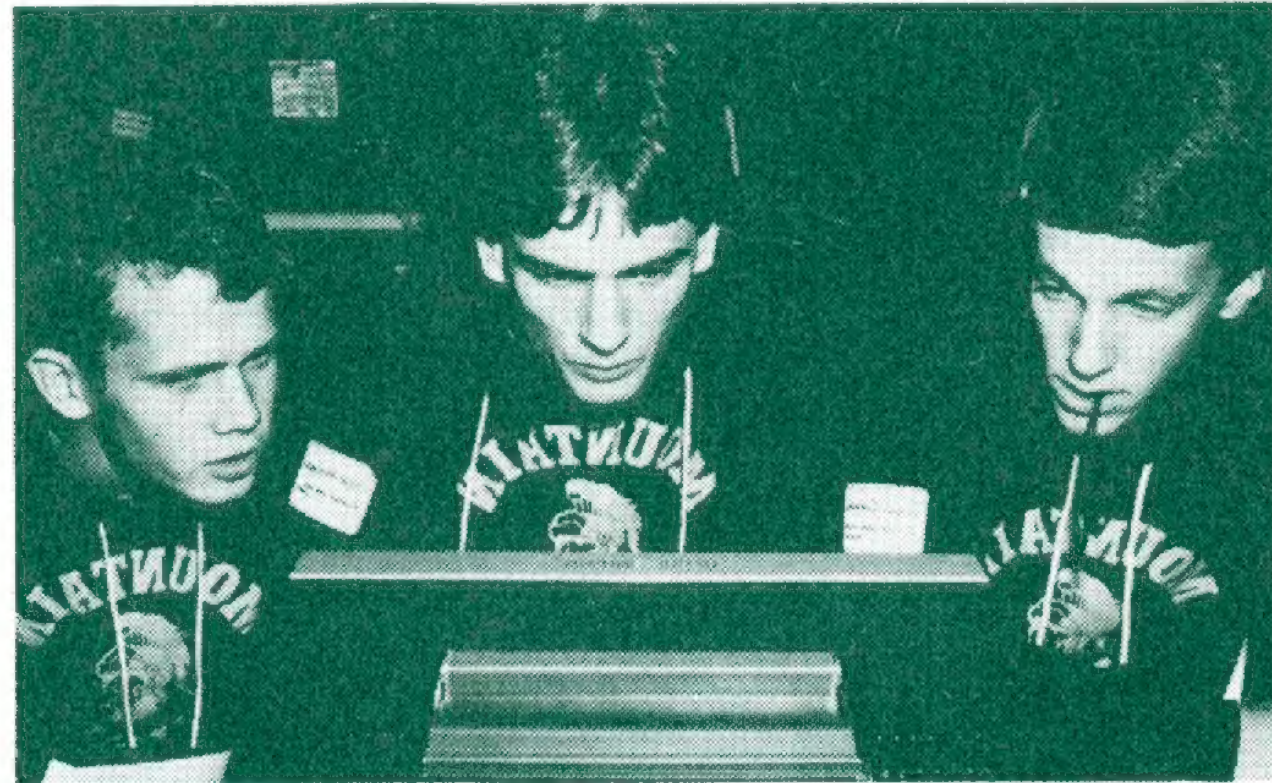
Animals: The Best of '86 displays the winning entries in the annual juried competition of the Society of Animal Artists. Delicate sand pipers, commanding African elephants and a range of other animals are sensitively depicted in their natural surroundings by some of America's foremost animal artists. More than 80 paintings, drawings and sculptures will be on display through February 1 in Lovell White Hall.



Lifelong Safari presents dramatic photographs by Dr. Edward S. Ross, taken during his long career traveling throughout the world in search of the tiny insects, Embids, that are the focus of his research. Clusters of stink bugs gather in patterns like a kaleidoscope and a praying mantis becomes Godzilla-like through Ross's powerful lens. The native people and terrains are recorded with the same grace and power in this exhibition that can be seen in Hohfeld Hall through May 3.

The Chimpanzees of Gombe Stream reveal their individual personalities and habits in color photographs on display in Lower Cowell Gallery. Dr. Jane Goodall is continuing her studies of this group of primates in Tanzania, but their pictures remain at the Academy only through January 11.

Inside the Academy



Marathon of the Minds, an interactive fiction competition, kept 60 young minds racing at the Academy on November 8 and 9. Beginning at 7 p.m. Saturday night, teams of students from 20 Bay Area high schools worked virtually nonstop, pitting their logic and creative problem solving skills against the latest computer program by Infocom. Twelve hours later at 7 Sunday morning, the students from Amador Valley High School in Pleasanton and Contra Costa Christian High School in Walnut Creek worked their way through verbal mazes and subtle clues to tie for first place, earning a computer for each school. The marathon was sponsored by the Academy of Sciences, Infocom, Egghead Software, RoundTable Pizza, and La Petite Boulangerie.

The Academy Store will open its doors on January 1. This new store, owned and operated by the California Academy of Sciences will offer a variety of exciting gifts and books relating to the natural world. Academy members will receive a 10% discount on purchases. Shopping at The Academy Store will not only offer shoppers a wide choice of quality gifts, but will also support the activities of the Academy.

The Academy's newsletter will have a new look in 1987. Recently the Academy's activities have increased so dramatically that they have outgrown the pages of the current newsletter's format. So beginning in January our new newsletter will have lots of space to allow us to share all of the Academy's events and news with our members. Be watching for it in late December.

The Volunteer Office is looking for members to serve as escorts, taking visitors to departments which are difficult to find and behind locked doors. It's a great way to keep in touch with what's happening at the Academy while performing a useful service to the museum. If you can spare some time on weekdays between 10 a.m. and noon or 1 p.m. and 4 p.m. please contact the Volunteer Office at (415) 750-7154.

Junior Academy offers workshops and field trips during the holiday vacation for youngsters 6-16. This year the activities include workshops on mobiles, mummies, and microscopes, as well as visits to local seashores and wildlife preserves. If your child is not a member of Junior Academy, it would make a wonderful Christmas gift and allow him or her to share throughout the year in the quality science education offered by this department. For information on activities or membership, call Junior Academy at (415) 750-7100.

Special Lecture

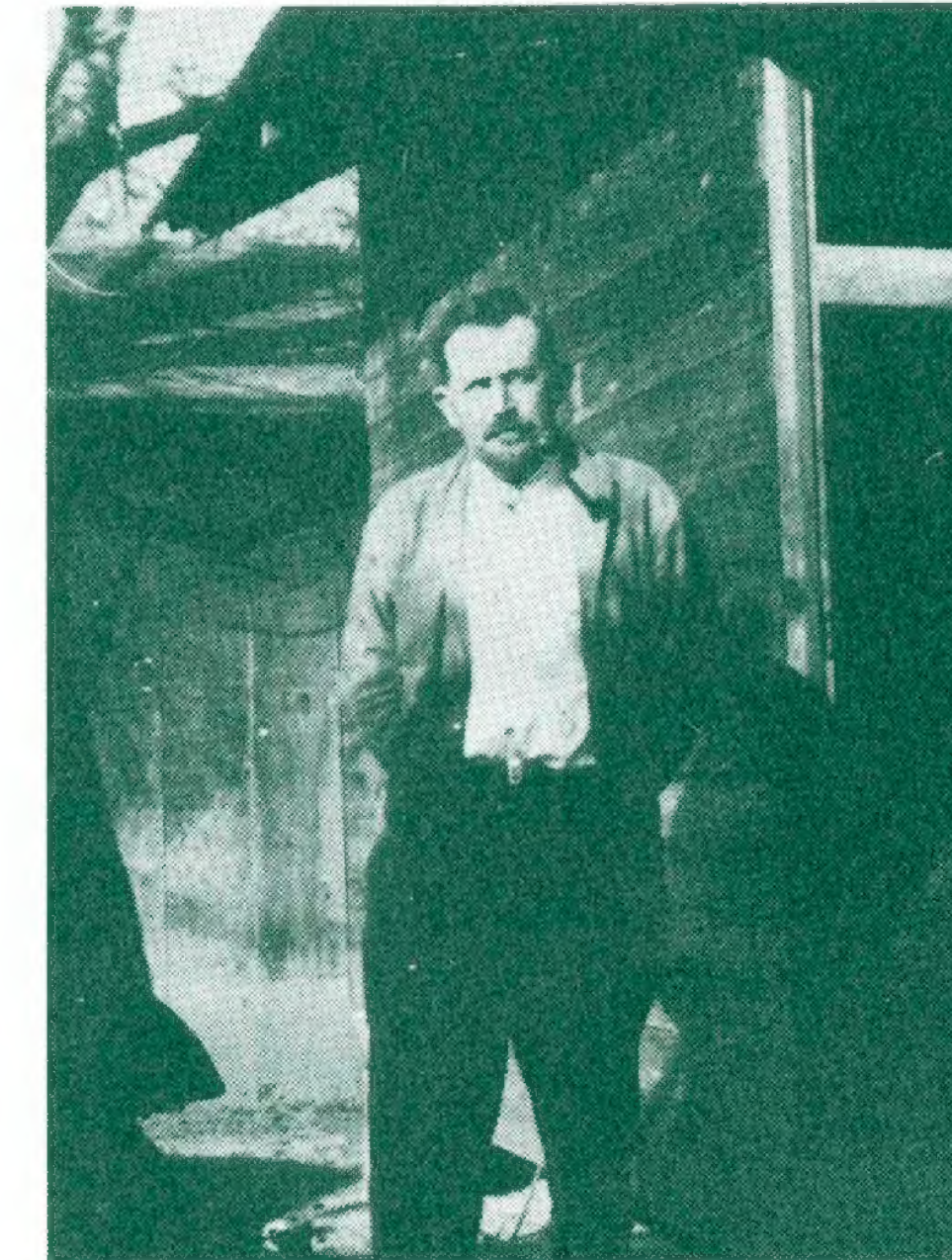
The Discovery of the Biblical City of Dan
Dr. Avraham Biran

Thursday, December 4 **8:00 p.m.**
Morrison Auditorium **Free**

For twenty years teams of archeologists have excavated at the site of the ancient city of Dan that once marked northern-most border of biblical Palestine. Under the direction of Avraham Biran of the Hebrew Union College in Jerusalem, work at Tel Dan has yielded a wealth of information about the early history of the area. Discovery of an intact, triple-arched gate from the Bronze Age city of Laish, which once stood on the same site, gave scholars new insights into the construction techniques and defense systems of the era. Dr. Biran will discuss the significance of recent findings in this informative and enjoyable slide/lecture.

Art of the Americas

The Meridan Nights series of lectures highlights the cultural arts of North, Central, and South America. The programs are sponsored by the Society of Art Publications of the Americas (SAPA) and the Academy of Sciences.



Qualities of Men

M.A. Clark

December 3

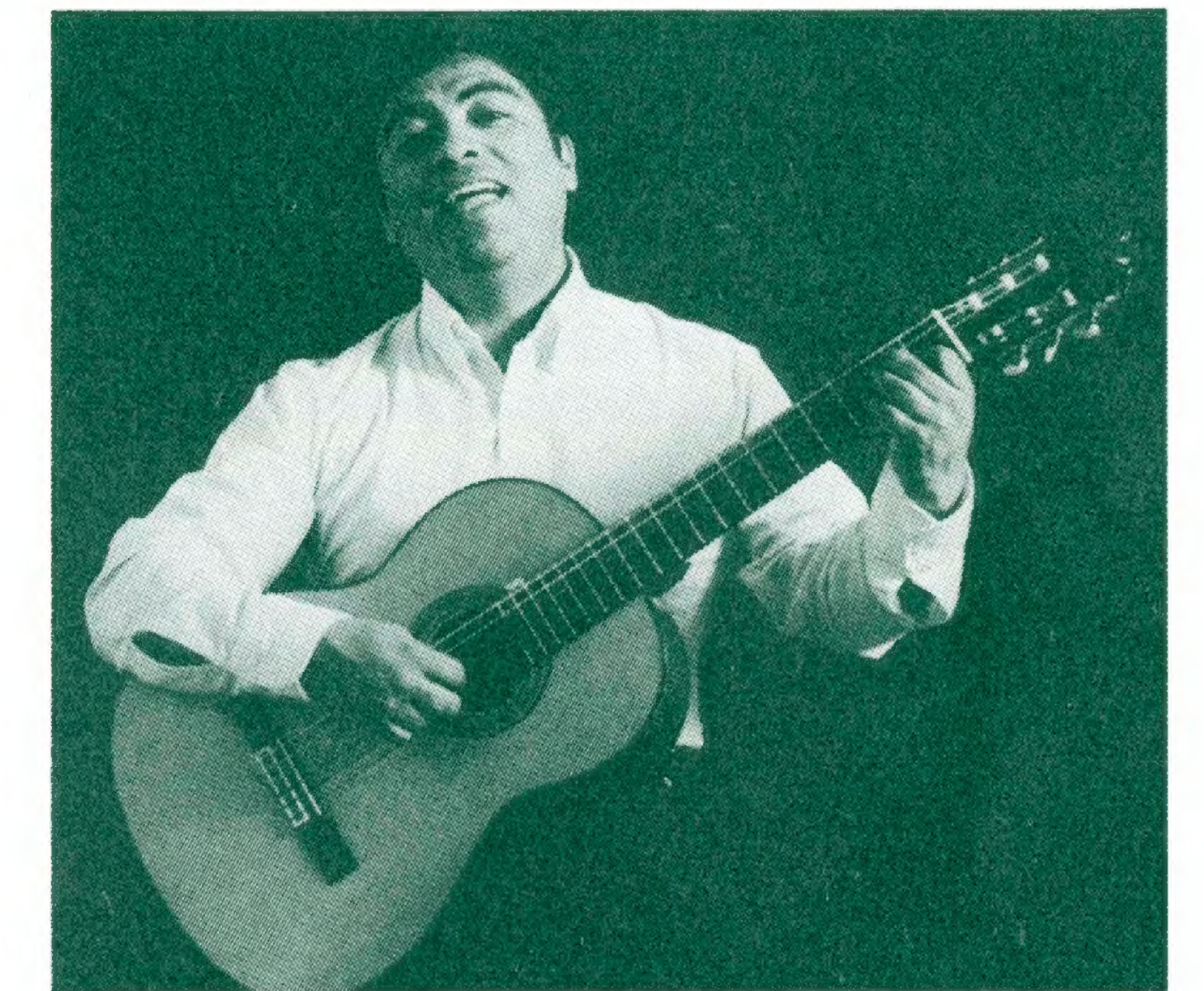
Wine and cheese: 7:00 p.m.
Presentation: 7:30 p.m.

California poet, writer, and photographer M.A. Clark presents a slide/lecture focusing on the distinguishing qualities of an older generation of Men of the West as seen through their work.

Tickets for the lecture and reception are \$5 at the door. For information call June Anderson at (415) 750-7164.

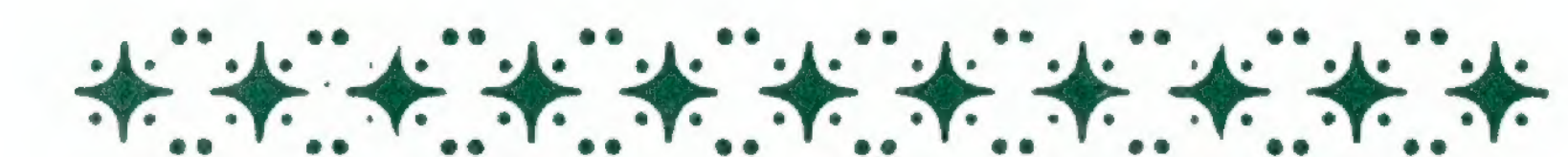
Traditional Arts

The Phyllis Wattis Traditional Arts Series offers visitors to the museum a chance to share in some of the diverse cultural traditions that are being kept alive in the Bay Area. These free programs are held most Saturdays at 1:00 p.m. in Wattis Hall of Man.



December 6— Singer/guitarist Jose-Luis Orozco entertains with a medley of Latin American *corridos* or narrative ballads. Come and sing along!

December 13— Bay Area celebrity Maggie Gin, famous for her stir fry sauces, prepares traditional Chinese dishes.



Holiday Music!!! The traditional arts program will offer a special free performance of Holiday music for the enjoyment of all museum visitors.

December 13 **2:30 p.m.**
Wattis Hall of Man

Get in the Holiday spirit at a special performance by the **Deutscher Musik-Verein** concert band. This 20 piece group will play Christmas music from around the world.

Give a Natural Wonder!



Share the wonder of the world of natural history by giving a gift membership in the California Academy of Sciences. Free admission to the Academy, Planetarium tickets, Academy Store discounts and beautiful *Pacific Discovery* magazine make this a gift that will be appreciated anew all year long.

Please enroll as an Academy member:

Name _____

Address _____

City _____ Zip _____

as a _____
(see categories below)

as a gift from _____
(your name for gift card)

Individual membership	\$ 30
Family membership	\$ 35
Contributing membership	\$ 50
Curators' Circle	\$100
Student membership	\$ 20
Senior membership	\$ 15
Senior couple	\$ 20

or, for friends too far away to enjoy the museum, a one year subscription to colorful and informative *Pacific Discovery* magazine

within the United States	\$11.00
outside the United States	\$12.50

Enclosed is a check payable to the California Academy of Sciences for \$ _____

Charge my VISA # _____

Charge my Mastercard # _____

For information call the Membership Office at (415) 750-7112.

Adult Education and Travel

Enjoy the complex and fascinating world of natural history by joining a study tour or class on your favorite topic — or develop a new interest! For information on these activities call the Education Office at (415) 750-7100

Mars

December 3-17 7:00-9:00 p.m.
\$25 members, \$35 non-members

Delve into the mysteries of the Red Planet!

The Biology of Mammals, Part II: Form and Structure

December 4-18 7:00-9:00 p.m.
\$25 members, \$35 non-members

Learn why some mammals can fly, burrow or swim and others don't even try.

Tides Turn, Salmon Spawn

December 5 8:00 a.m.-4:30 p.m.
\$30 members, \$40 non-members, includes transportation and cold drinks

Water, water everywhere — at Warm Springs Dam and the Bay Model in Sausalito.

Academy Expeditions

Now is the time to plan a memorable trip to one of the exciting destinations offered by the Academy's travel program. All trips are accompanied by a lecturer who is knowledgeable about the highlights of the area, making each trip a fascinating learning experience. For information on any of the expeditions listed below call the Academy Travel Office at (415) 750-7222.

Guatemala: Heartland of the Ancient Maya April 5-21

Easter holiday is an excellent time to visit the spectacular ruins of the Mayan civilization and

the colorful towns of the Mayan peoples. Our itinerary takes us to many of the Pre-Columbian sites in Guatemala and Honduras. We will spend two days at Tikal, deep within the Peten Jungle, then travel to Copan in nearby Honduras.

While in the Guatemalan highlands, members will visit the picturesque city of Antigua during the city's colorful Good Friday processions and celebrations. Sunday will be spent in the colorful, bustling markets of Chichicastenango.

Dr. John Carlson will be our guest lecturer on this journey. Dr. Carlson has led numerous tours for the Academy. He is professor of astronomy and anthropology at the University of Maryland and an expert of Pre-Columbian Meso-America.

Please join us on this rich and rewarding experience! Costs are \$2100 land and \$498 for air at current rates. Call the Academy Travel Office at (415) 750-7222.

Other 1987 Expedition:

BAJA CALIFORNIA CIRCUMNAVIGATED

March 30-April 15
Leader: Dr. James C. Kelley

WILDERNESS GRAND CANYON

April 5-10
Leader: Jean DeMouthe

ROGUE RIVER WHITEWATER ADVENTURE

June 19-23
Leader: Dr. Robert Drewes

PAPUA NEW GUINEA

July 15-August 6

COASTAL MAINE AND THE BAY OF FUNDY

August 7-19

THE SWISS AND ITALIAN ALPS

August 21-September 6
Leader: Dr. Frank Almeda

CANYON OF TIME: America's Southwest
September 22-October 3

BRAZIL AND ARGENTINA
September 23-October 12

ORIENTAL ODYSSEY: Burma and Thailand
November 2-24

The Month At A Glance

DECEMBER

- 3 Lecture — M.A. Clark
- 4 Lecture — City of Dan
- 5 Opening of **The Christmas Star** in Planetarium
- 6 Traditional Arts — Jose Luis Orozco
- 8 Family Holiday Evening
- 9 Planetarium concert — classical flute and guitar
- 9 Opening of **Nativity Folk Art** display
- 10 Members' Meeting
- 11 Members' Meeting
- 13 Traditional Arts — Maggie Gin
- 13 Deutscher Musik — Verein holiday music

December Members' Meeting

Dates & Times

Matinee, 2:00 p.m., Wednesday, December 10
Evenings, 8:00 p.m., Wednesday and
Thursday, December 10 and 11

Place

Morrison Auditorium

Speaker

Dr. Kathy Ann Miller

Subject

Diving Beneath the Ice in Antarctica



Even for the most experienced diver, dropping through six to nine feet of ice into water that is two degrees below zero centigrade is a test of physical and mental courage. Dr. Kathy Ann Miller spent a total of eight months at McMurdo Station in the Antarctic studying seaweeds and collecting sponges and echinoderms for the Academy's Invertebrate Zoology Department in water so pristine that visibility was often 600 feet. In this slide/lecture she will share her experiences in this silent world that has been seen by very few humans.

Dr. Miller earned her doctoral degree in Botany at the University of California Berkeley studying seaweeds. In addition to her work in the Antarctic, she has conducted research in the Galapagos and Channel Islands.

SNEAK PREVIEW: January 14 and 15 Dr. Daphne Fautin will describe "The Academy's New Research Projects in New Guinea".



A SPECIAL HOLIDAY EVENING FOR THE FAMILY

Monday, December 8 6:00-9:00 p.m.

What better way to begin the Holiday season than an evening at the Academy with fun and festivities for the entire family. There will be traditional Christmas music and sing-along carols for members as they admire the huge tree decorated with ornaments made by members of many different cultures. Jugglers and magicians will perform feats of amazing agility. Nativity scenes from many cultures show how different people have interpreted the Christian story of the Christ child to fit with their own traditions.

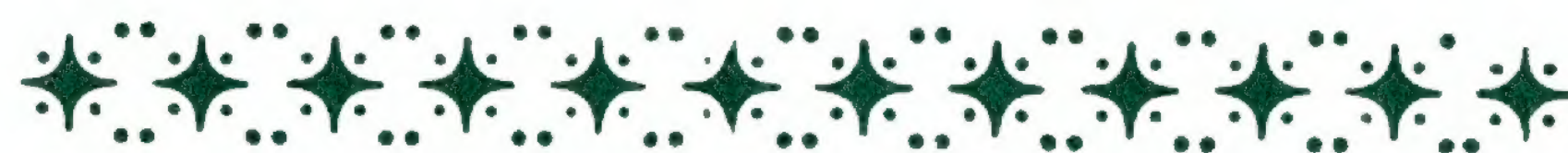
Evening festivities include:

- 6:00-7:00 The Harbinger Consorts**
brass quintet plays traditional carols
- 6:30-6:50 Tamaka the Magician** works his holiday magic
- 7:00-7:30 The San Francisco Girls Chorus** sings holiday favorites
- 7:30-8:00 Make-A-Circus** demonstrates how to put perfect balance in your life
- 8:00-8:20 Tamaka the Magician** has more tricks up his sleeve

A very special Santa Claus who knows all about children, toys and the Christmas frog will make his annual appearance, spreading good cheer and love of reptiles throughout the Academy.

The Nature Company will be open throughout the evening for holiday shopping.

Admission, \$2 for adults and \$1 for children 17 and under, will be paid at the door that evening.



Golden Gate Park
San Francisco, California 94118-9961
(415) 221-5100

Open every day of the year
from 10 until 5



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